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EUROPE MIDDLE EAST AFRICA

RESEARCH AND DEVELOPMENT

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AUGUST 1980

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PME RESEARCH LABORATORY, AUGUST 1980

PROJECT TITLE : PRODUCT RESEARCH

PERIOD COVERED : JULY 25 - AUGUST 25, 1980

WRITTEN BY : P. GHISTE

Efforts during this period were focused on services for projects SPOTLESS (1) and PROTAGORAS (2).

NO and CO in mainstream (MS) and sidestream (SS) smoke of 16 SPOTLESS prototype cigarettes were determined. Values are given in Table 1. Coding assigned to the individual experimental cigarettes listed in Table 1 is:

First sign : Ø (zero) for the year 1980
A : for aircured type tobacco
B : for American blend type tobacco
SPO : for denitrated (by washing)

B Blend (Type MLF)

1 ØS-B-TOT	Blend (B-FC, B-BU, B-OR), untreated
2 ØS-B-TOT/SPO	Blend (B-FC, B-BU, B-OR), denitrated
9 ØS-B/SPO/SPO/SPO	Blend ØS-B-FC/SPO, denitrated +ØS-B-BU/SPO, denitrated +ØS-B-OR/SPO, denitrated
3 ØS-B-FC	B-FC, untreated
6 ØS-B-FC/SPO	B-FC, denitrated
4 ØS-B-BU	B-FC, untreated
7 ØS-B-BU/SPO	B-BU, denitrated
5 ØS-B-OR	B-OR, untreated
8 ØS-B-OR/SPO	B-OR, denitrated

A Aircured (Type BRD)

1 ØS-A-TOT	Blend (A-MD, A-CH), untreated
2 ØS-A-TOT/SPO	Blend (A-MD, A-CH), denitrated
7 ØS-A/SPO/SPO	Blend of OS-A-MD/SPO, denitrated +OS-A-CH/SPO, denitrated
3 ØS-A-MD	A-MD, untreated
5 ØS-A-MD/SPO	A-MD, denitrated
4 ØS-A-CH	A-CH, untreated
6 ØS-A-CH/SPO	A-CH, denitrated

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Elimination of nitrate from high-nitrate blends by washing results in a NO reduction of 85 to 95 % for MS and 35 to 45 % for SS smoke. Even in low-nitrate blends, e.g. ØS-B-FC and ØS-B-OR (NO_3-N = 0.03 %) washing has a remarkable effect, inasmuch as the NO level in mainstream smoke is reduced by 64 %. Probably other nitrogen-containing "water solubles", e.g. free amino acids, contribute to a large extent to the total NO level.

Washing of the tobaccos tends to increase the CO delivery. The increase is more pronounced in SS smoke (25-30 % vs. non-washed tobacco) than in MS smoke (15-20 %).

For project PROTAGORAS nitric oxide and CO in MS and in SS smoke of one experimental cigarette made from partially de-proteinized SPOTLESS blend ØS-B-TOT were determined.

REFERENCES

(1) F. Moser, PME Research Laboratory, Monthly Progress Report, June 1980, pp. 8-17.

(2) A. Haenggi, PME Research Laboratory, Monthly Progress Report, June 1980, pp. 18-20.

P. Ghiste

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Source: https://www.industrydocuments.ucsf.edu/docs/kpml0000

Table 1 : Values of NO and CO in the Mainstream (MS) and Sidestream (SS) Smoke of Experimental SPOTLESS Cigarettes.

					NO									CO								
TOBACCO CODE	PRESSURE DROP (mmH_2O)	PUFF COUNT	BURNED WEIGHT		MS			SS			(MS+SS)			MS			SS			Σ(MS+SS)		
			(mg)	Δ%	µg/cig	µg/g*	Δ%	µg/cig	µg/g*	Δ%	µg/cig	ug/g*	Δ%	mg/cig	mg/g*	Δ%	mg/cig	mg/g*	Δ%	mg/cig	mg/g*	Δ%
1 OS-B-TOT	116	7	570	--	220	385	--	1720	3020	--	1940	3400	--	16.4	28.8	--	41.6	73.1	--	58.0	101.9	--
2 OS-B-TOT/SPO	112	7	570	--	25	45	-88	1150	2020	-33	1175	2065	-40	20.5	36.0	+25	55.8	97.9	+34	76.3	133.9	+31
9 OS-B-SPO/SPO/SPO	102	7	515	-10	30	60	-85	955	1855	-39	985	1915	-44	18.7	36.3	+26	50.2	97.5	+33	68.9	133.8	+31
3 OS-B-FC	143	8	495	--	55	110	--	1110	2240	--	1165	2350	--	15.8	31.9	--	35.0	70.7	--	50.8	102.6	--
6 OS-B-FC/SPO	100	7	505	--	22 20	40	-64	870	1725	-23	890	1765	-25	16.3	32.9	+3	45.0	89.1	+26	61.3	122	+19
4 OS-B-BU	140	7	595	--	260	440	--	2100	3530	--	2360	3970	--	17.5	29.4	--	47.1	79.2	--	64.6	108.6	--
7 OS-B-BU/SPO	137	7	585	--	20	35	-92	815	1395	-60	835	1430	-64	17.6	30.1	+2	53.0	90.6	+14	70.6	120.7	+11
5 OS-B-OR	117	11	645	--	80	125	--	1270	1970	--	1350	2095	--	16.0	24.8	--	45.0	70.0	--	61.0	94.8	--
8 OS-B OR/SPO	103	6	485	-25	20	40	-68	990	2040	--	1010	2080	--	14.4	29.7	+20	43.0	88.7	+27	57.4	118.4	+25

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TOBACCO CODE	PRESSURE DROP (mmH_2O)	PUFF COUNT	BURNED WEIGHT (mg)	Δ%	NO MS µg/cig	NO MS µg/g*	NO MS Δ%	NO SS µg/cig	NO SS µg/g*	NO SS Δ%	NO Σ(MS+SS) µg/cig	NO Σ(MS+SS) µg/g*	NO Σ(MS+SS) Δ%	CO MS mg/cig	CO MS mg/g*	CO MS Δ%	CO SS mg/cig	CO SS mg/g*	CO SS Δ%	CO Σ(MS+SS) mg/cig	CO Σ(MS+SS) mg/g*	CO Σ(MS+SS) Δ%
1 OS-A-TOT	118	6	475	--	275	580	--	1095	2305	--	1370	2885	--	16.1	34.0	--	35.2	74.2	--	51.3	108.2	--
2 OS-A-TOT/SPO	112	7	515	+8	25	50	-91	497 500	970	-42	525	1020	-65	20.0	39.0	+15	37.3	72.6	--	57.3	111.6	+3
7 OS-A-SPO/SPO	108	7	475	--	20	40	-93	685	1440	-38	705	1480	-49	18.9	39.6	+16	38.2	80.3	+8	57.1	119.8	+11
3 OS-A-MD	136	9	675	--	415	615	--	1485	2200	--	1900	2815	--	22.4	33.1	--	29.7	44.0	--	52.1	77.1	--
5 OS-A-MD/SPO	115	7	480	-29	25	50	-92	620	1290	-41	645	1340	-52	19.8	44.2	+34	29.0	60.4	+37	48.8	101.7	+32
4 OS-A-CH	146	7	510	--	285	560	--	1465	2870	--	1750	3430	--	16.7	32.5	--	35.8	70.1	--	52.2	102.8	--
6 OS-A-CH/SPO	113	6	405	--	25	60	-89	560	1385	-48	585	1445	-58	15.4	38.1	+17	27.9	69.0	--	43.3	107.1	+4

Δ% = the difference to control in %

µg/g* = microgramme per gramme of burned tobacco

mg/g* = milligramme per gramme of burned tobacco

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PME RESEARCH LABORATORY, AUGUST 1980

PROJECT TITLE : ANALYTICAL INVESTIGATIONS

PERIOD COVERED : JULY 28 - AUGUST 29, 1980

WRITTEN BY : F. MOSER

NEW ANALYTICAL METHODS

Freon 11 in Expanded Tobacco

Monitoring of Freon 11 in cigarettes containing ET is frequently requested (1-3). In order to continue our efforts to get a simple, rapid and accurate gas chromatographic method to analyze Freon 11 in ET containing filler, the following procedure has been worked out.

Instrumentation and gas chromatographic conditions:

HP 5700 with automatic injector model HP 7671A and integrator HP 3380A. Detector: EC Ni^{63}, injector temp.: 250°, detector temp.: 300°, column temp.: 190°, carrier gas: 5 % methane in argon, 35 ml/min; column 2 m x 1/8" ss, Porapack Q 80/100.

Procedure:

A 4-5 gramme sample of filler is weighed accurately in a 50 ml bottle with screw-on cap and Teflon lining and extracted with 25 ml of petrol ether (bp range 40-60°) containing chloro-bromo-methane, CH_2BrCl (448 ng/ml), as internal standard by shaking for at least 5-6 hours. The supernatent extract is centrifuged and a 3 µl aliquot of the supernatent extract is injected into the gas chromatograph.

Standard solutions of Freon 11 are used to derive a standard curve. The standard curve is linear over the range of 1-5 ng/ml.

Fig. 1 shows gas chromatograms of two brands, Winston Lights and Marlboro, both containing differently processed ET. Table 1 gives some Freon values found in competitive brands.

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SERVICE FOR OTHER GROUPS

- Citric, oxalic, malic and fumaric acid (by HPLC) in three LTR samples (5)(6).
- ISH in 32 TLA samples.
- Freon 11 in 19 competitive brands (7).

REFERENCES

(1) Memo of H.B.D. Taylor to M. Häusermann, February 21, 1980.
(2) Memo of M. Häusermann to H.B.D. Taylor, March 3, 1980.
(3) Memo of F. Senehi to F. Moser, August 28, 1980.
(4) F. Moser, PME Monthly Progress Report, November 1979.
(5) Memo of J. Joseph to W. Fink, August 26, 1980.
(6) Memo of W. Fink to L. Joseph, August 29, 1980.
(7) Memo of F. Moser to F. Senehi, August 28, 1980.

F. Moser

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TABLE 1 : Freon 11 in Competitive Cigarette Brands Containing Expanded Tobacco.

Country of sale	Brand		Manufacturer	ET (%)	Freon 11 (ng/g tobacco)
West Germany	Die Rhenania Jagd	84/F	Reynolds	6	2.2
	Kapitän	84/F	Reynolds	8	2.4
	Haus Neuerburg	84/F	Reynolds	16	4.9
	Camel Mild	84/F	Reynolds	17	14.8
France	John Players Extra Mild	84/F	Imperial Tob.	9	3.0
	Camel Mild	84/F	Reynolds	16	19.0
	Winston KS	84/F	Reynolds	8	3.2
Netherlands	Reynolds No. 1	69/F	Reynolds	50	10.9
	Winston	100/F	Reynolds	8	2.5
	Camel Filter	84/F	Reynolds	7	13.2
United Kingdom	Decade	84/F	Liggett & Myers	20	4.1
	John Players KS	84/F	Imperial Tob.	7	not detectable
	John Players Extra Mild	84/F	Imperial Tob.	7	2.2
Norway	Salem Lights Menthol	79/F	Reynolds	4	2.6
Sweden	Right KS	84/F	Swedish Tob.	34	4.1
	Salem Lights Menthol	79/F	Reynolds	9	5.2
Switzerland	Camel Mild	79/F	Reynolds	15	5.4
	Camel Filter	84/F	Reynolds	3	11.0

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Figure 1

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PME RESEARCH LABORATORY, AUGUST 1980

PROJECT TITLE : ANALYTICAL INVESTIGATIONS

PERIOD COVERED : JULY 28 - AUGUST 29, 1980

WRITTEN BY : E. LECOULTRE

CF IN COMPETITIVE BRANDS

105 brands from 14 European countries (Switzerland, France, Netherlands, Italy, Austria, Belgium, Denmark, Norway, Sweden, Finland, Greece, England and Yugoslavia) were analyzed for coumarin (1). As far as possible, the 10 leading brands of each country were taken. Values were obtained by gas chromatography and confirmed by GC/MS (SIM). Coumarin values of some competitive brands reported elsewhere (2) could not be confirmed by checking with GC/MS.

Coumarin values (ppm), country, brand and manufacturer are listed in Table 1. Coumarin as flavourant is used in 8 of the 14 investigated countries. The coumarin concentrations range from 6 to 72 ppm. The by far highest concentration was found in "Old Navy"/Greece. "Old Navy-Lights" offered in Germany contains neither coumarin nor coumarin replacers (7).

COMPOUND IDENTIFICATION

In extracts of 7 Australian leaf samples which were analyzed for organochlorine and organophosphorus pesticide residues (3) some halogen and phosphorus containing substances of unknown composition were detected by gas chromatography (4). In order to check whether pesticides of unknown formulation are applied in Australia, identification of these substances by GC^2/MS was started.

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CONTAMINATED LEAF TOBACCO

Leaf Department requested the identification of contaminations on Rhodesian leaf tobacco Lot No. 3728, grade 9C x BF/S (5). A contaminated and a control sample were screened for pesticides (6). The extracts contain some compounds which could not be identified by gas chromatography. Compound identification by GC^2/MS is in progress.

REFERENCES

(1) E. Lecoultre, PME Research Laboratory, Monthly Progress Report, July 1980.

(2) W. Fink, R & D Meeting of August 20, 1980.

(3) Memo of F. Moser to P. Francis, May 19, 1980.

(4) Memo of M. Speck to W. Fink, February 21, 1980.

(5) Verbal Request by P. Karle, July 1980.

(6) Memo of W. Fink to M. Hansen, August 22, 1980.

(7) Memo of W. Fink to M. Häusermann, September 4, 1980.

E. Lecoultre

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Source: https://www.industrydocuments.ucsf.edu/docs/kpml0000

TABLE 1 : COUMARIN IN COMPETITIVE BRANDS

COUNTRY	BRAND	COUMARIN	MANUFACTURER
Switzerland	Camel F	30.5	RJR
Greece	Old Navy F	72.2	Papastratos
Norway	Pall Mall King Size F	8.9	Suomen Tup.
	Pall Mall Mild F	15.8	Suomen Tup.
Denmark	Look Light F	17.8	Skand. Tob.
	Look Super F	14.8	Skand. Tob.
England	Vanguard F	8.3	Imperial
Netherlands	Caballero F	6.3	Laurens
Finland	Colt F	7.5	Rettig STR
France	Camel F	23.0	RJR
	Camel Mild F	26.6	RJR

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PME REASEARCH LABORATORY, AUGUST 1980

PROJECT TITLE : AGRICULTURAL CHEMICALS

PERIOD COVERED : AUGUST 1980

WRITTEN BY : M. SPECK

ROUTINE ANALYSES

Number of tobacco samples analyzed for pesticide residues in August:

Organochlorine	44
Organophosphorus	44
Organophosphorus + Methamidophos	18
Dithiocarbamate	43
Maleic Hydrazide	41
Ridomil	1

TOBACCO LEAF CONTAMINATION

Two samples of Lot No. 3728 (grade 9C x BF/S; country: RHO) were submitted by Leaf Dept./Lausanne for characterization of tobacco leaf contamination. The two samples, labelled as "intabex 3728 control" and "intabex 3728 contaminated" were analyzed for pesticides. Pesticide residues were found in neither sample. Gas chromatograms of extracts of both tobacco samples were however completely different. The sample "intabex 3728 control" contains some phosphorus and/or nitrogen containing compounds not present in the contaminated sample (1).

Samples and extracts have been forwarded to the analytical service group for GC/MS investigation.

REFERENCE

(1) Memo of W. Fink to M. Hansen, August 22, 1980.

M. Speck

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PME RESEARCH LABORATORY, AUGUST 1980

PROJECT TITLE : SPOTLESS

PERIOD COVERED : JULY - AUGUST 1980

WRITTEN BY : F. MOSER

OBJECTIVE AND CODE SYSTEM

See project SPOTLESS report June 1980.

ANALYTICAL PROGRAMME

Filler:

TLA (whole programme)	:	made
Nitrosamines	:	outstanding
Amino acids	:	"

Smoke:

TLA (whole programme)	:	made
NO in MS and SS	:	made
CO in MS and SS	:	made
Nitrosamines in MS and SS	:	outstanding

As soon as the outstanding data become available, probably in October, an intermediate progress report will be written.

Biological tests:

2000 cigarettes of each prototype (16) were sent to INBIFO.

F. Moser

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PME RESEARCH LABORATORY, AUGUST 1980

PROJECT TITLE : BIOTECHNOLOGY

PERIOD COVERED : AUGUST 1 - 31, 1980

WRITTEN BY : J. BERNEY

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1. DENITRATION, STEM-EXTRACT, ACETIC ACID (1)

When acetic acid is used for pH adjustment in the NINO process, the following acid consumption values are observed:

Denitration pH	acetic acid consumption g/l
5.0	36.26
5.5	32.74
6.0	37.77
6.5	36.89

As can be seen from the table, the acetic acid consumption is fairly independent of the pH value at which the denitration process took place. However, from a pH of 4.5 downwards problems were encountered with nitrate assimilation by the yeast. That means that for all practical purposes pH 5 is the lowest possible pH for denitration with Candida utilis and acetic acid for pH control.

The residual acetic acid concentration in the denitrated extract is going to be determined and will be reported shortly.

2. NITRATE MEASUREMENTS WITH THE TECHNICON MONITOR (2)

The suitability of the Technicon IV nitrate monitor for continuous measurements of nitrate values in SEL has been tested. In four separate experiments, continuous measurements covering periods between 15 and 18 hours showed the following variation:

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No. of Run	Nitrate Measurements Coefficient of Variation
1	3.2
2	9.5
3	2.4
4	2.5

The results shown in the table are comparable with those obtained with the ORION NO_3^- electrode (3).

As with the ion-specific electrode, there are fouling problems with the Technicon. These problems could be overcome by using rinsing cycles between the measurements.

It appears that the Technicon system is a valuable alternative to the ORION electrode as sensor in an electronic control system.

3. CONTROL OF SUGAR ADDITION IN PROPORTION TO THE NITRATE CONCENTRATION

In order to assure maximum efficacity of the NINO process, the sugar concentration of the incoming SEL has got to be adjusted in proportion to its nitrate content.

In order to do so Mr. Thevoz, in collaboration with the Biotechnology Group, designed a suitable electronic control system. The equipment would be tested in the laboratory before its installation in the NINO pilot plant.

The first parts of the required hardware have already been ordered. It is foreseen to proceed in two steps: first to automate the determination system, and then to proceed with the automatic feedback regulation of the sugar addition.

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4. MISCELLANEOUS

Services to other groups:

- Freeze-drying of NINOmass (PAG).
- Determination of citrate (4) (LIJ).
- Determination of Total-N (pilot plant).

REFERENCES

(1) M. Mangilli, Laboratory Notebook 791205, p.45-49.

(2) J. Berney, Laboratory Notebook 791202, p. 24-32.

(3) D. Schulthess, Monthly Report Biotechnology, March 1980

(4) J. Berney, Laboratory Notebook 791202, p. 34-36

J. Berney

0001433335

Source: https://www.industrydocuments.ucsf.edu/docs/kpml0000

PROJECT TITLE : Nitrate Reduction by Controlled Fermentation

PERIOD COVERED : July 26th - August 31st, 1980

WRITTEN BY : C. Ruf

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1. TRIALS

Trial NINO 62

This trial ran since 29th to 31st July in the 20 l fermenter. Its main objective, besides the training of the new laboratory technician, was to achieve a total denitration of a strips extract with the addition of sugar corresponding to the NO_3-N concentration only, during both batch and continuous run. The goal was reached and the analytical results have been received. The results will be discussed after the vacation period.

2. EVALUATION OF DENITRATION PROCESSES

Since 18th to 25th August three RL sheets were made in the RL pilot plant in Richmond using SEL denitrated by NINO process (Ref. 1 and 2).
The denitration was carried out by FTR personnel working with the PM USA pilot plant fermentation equipment. Despite several problems due to equipment failures, three different denitrated liquors were produced using the following agents for pH control.

1) 90% citric and 10% phosphoric acids.
2) 30% citric, 30% acetic, 30% lactic and 10% phosphoric acids.
3) 90% acetic and 10% phosphoric acids.

RL sheets were produced with each of these denitrated extracts. Cigarettes and analyses will be made in Richmond.

3. PILOT PLANT EQUIPMENT

3.1. Maintenance

The maintenance of the equipment in the pilot plant was finished on August 27th (Ref. 3)

3.2. Extractor

The new V-shape extractor in stainless-steel was received on August 27th and has been installed.

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3.3. Dryer

The gas dryer was completely overhauled by the FTR workshop. Some parts such as cylinder, jacket and outlet have been replaced.

3.4. Liquor clean-up

In order to reduce the fouling of the heat exchangers, the extract will be centrifuged before going into the sterilization line. Therefore a disk centrifuge rented from Alfa-Laval has been installed at the outlet of the extractor.

3.5. Carousel extractor

The switch-box for the control instruments was ordered from the FTR electrical department.

4. REFERENCES

Ref. 1 : "NINO USA", Report from D. Schulthess, September 2, 1980

Ref. 2 : "US Trip", Report from H. Gaisch, September 1. 1980

Ref. 3 : "Révision de l'installation-pilote NINO, juillet-août 1980", report from R. Perrinjaquet, September, 1980

PROCESS DEVELOPMENT

C. Ruf

September 5th, 1980
CLR/sde

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PROJECT TITLE : New Material Development

WRITTEN BY : E. Erkohen

PERIOD COVERED : July 28th - August 26th, 1980

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1. Tipping Paper

1.1. Modified Tipping Paper Benkert Z4/90 and Z4/100

Merit cigarettes received from PM-Munich with modified tipping paper Z4/90 and Z4/100 (modifications : holes are smaller and more numerous) were sent to taste evaluation (Ref. 1). Cigarettes with modified Z4/90 tipping paper were found "not clean enough and slightly strange", whereas cigarettes with modified Z4/100 "gave a good tobacco taste flavour but they were milder" (Ref. 2).

1.2. Malaucène Micro-Laser Perforated Tipping Paper

Five bobbins were received from Malaucène with a porosity of 58 l/h/4 cm. MLK-CH cigarettes were made with this tipping paper and compared to MLK-CH standard cigarettes (tipping paper Benkert Z3/60). Smoke analyses results have not been received yet.

2. Filter Paper

2.1. Ecusta Ultraporous Plug Wraps (Ultrapor^{M})

Six bobbins of Ultraporous plug wraps were received.The physical test results are given in the table below.

Ecusta Quality No	width mm	Porosity in "K"	Porosity Coresta
28018	27	46.5	1700
28035	27	111.4	4150
28040	27	126.5	unmesurable
28060	27	187.5	"
28070	27	276.3	"
28100	27	308	"

00014333

Source: https://www.industrydocuments.ucsf.edu/docs/kpml0000

2.2. Schöller and Hoesch

2.2.1. Porous plug wrap coated with hot melt

The physical tests showed that this paper has a porosity of 340 K.

2.2.2. Porous plug wraps "Fu-Pov 100 mgl, Fu-Pov 150 mgl and Fu-Pov 250 mgl"

Schöller and Hoesch developed a new high-porous plug wrap with a substance of 20 g/m^2 which has properties comparable to their usual grades with a substance of 30 g/m^2.
From the technical point of view there is an advantage of less down-time when changing bobbins : the 20 g/m^2 paper Fu-Pov 100 will be approximately 5200m long compared to only 2800 m for the 30 g/m^2 quality, for a specified outside diameter of the bobbin of 580 mm.
These bobbins have been sent to QA for physical testing.

3. Filter Material

Eastman submitted a tow 33/44000 Y. The test on the "capability" of this tow was not conclusive. The "capability curve" obtained was approximately vertical
The test has to be repeated.

References :

1. Monthly report, New Material Development, July 1980; E. Erkohen
2. Taste evaluation of July 16th, 1980

E. Erkohen

August 26th, 1980
ELE/sde

0000143339

Source: https://www.industrydocuments.ucsf.edu/docs/kpml0000

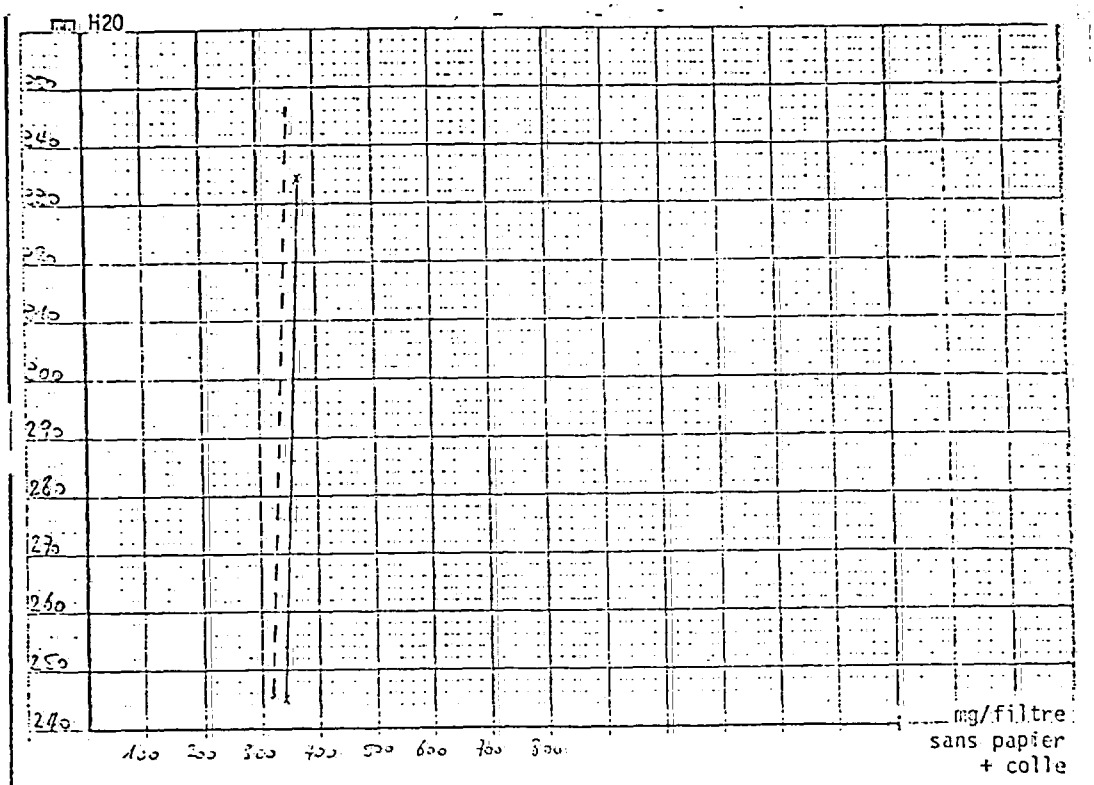
COURBE DE CAPACITE FILTRE	DATE	EDIT.	
	TOW : 3,4 / 44 000 Y		
Pays : Fabrique :	FOURNISSEUR : Eastman		

Machine : Type = KDF 2 No = Vit. = 3500

Essai effectué sur filtre : MLFPB
Ø mm : 7,86
long. mm : 108
RTD mm H_2O : 375

Valable pour filtres :

--- sec
—— complet



Remarques :

Effectué par :	Distribution :
Etabli par :	

0001433340

Source: https://www.industrydocuments.ucsf.edu/docs/kpml0000

PROJECT TITLE : CIGARETTE DEVELOPMENT TECHNICAL REPORT

WRITTEN BY : Z. SINGER

PERIOD COVERED : July 26th - August 20th 1980

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365 BARBARA

K = 13 mg
N = 0.9 mg
Puff count : 9
Format : 7.95/20/84.4

Awaiting the arrival of the new flavour from Richmond, two unflavoured prototypes have been produced with MLKPB 120 filter, WP 60 cigarette paper, Z3/30 tipping paper and different tobacco weights.
Specifications of prototype 6 will give the basis for the flavour trial with the blend DB 0136502N02 (without ET) and prototype 5 for trial with the blend DB 0136503N02 with 11 % of ET.

Prototype No		5 P	6 P
K	mg/cig.	12.7	12.5
N	mg/cig.	0.92	0.87
CO	mg/cig.	16.2	16.2
NO	mg/cig.	0.22	0.24
Puff count		9.7	9.2
Tobacco weight at 12 % MC	mg/cig.	844	828

The flavour from Richmond has been received, flavoured blend is available. In parallel, the flavoured prototypes for project MIAMI will be produced.

250 COCKPIT BLUE

Re-engineering
K = 14 mg
N = 0.9 mg
CO = 14 - 15 mg
Puff count : 9 (max. 10)
Format : 7.95/25/90

Prototypes 96 and 98 without dilution and prototype 100 have been submitted to the smoking Panel A for taste evaluation. Prototype 100 is considered better than the present PMI, with richer and riper taste, cleaner and softer.
This prototype has been submitted to the Marketing Department and to the Panel B in Munich for the evaluation of the taste direction. In case of positive results, a modified blend recipe will be established with a lower TA content in order to be within the objectives as far as smoke nicotine is concerned.

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Source: https://www.industrydocuments.ucsf.edu/docs/kpml0000

The specifications of prototype 100 will give the basis for further development.

Prototype No :		100 P
K	mg/cig.	14.1
N	mg/cig.	1.09
CO	mg/cig.	14.3
NO	mg/cig.	0.19
Puff count		10.2
Cigarette paper		Ecusta E 753
Tipping paper		Z3/60
Filter : Tow		5.0 I/46'000
Paper		FU-POV 40 L
Tobacco weight at 12 % MC	mg/cig.	872
Dilution	%	14
Cigarette RTD	mm WG	93

335 LOLITA

K = 10 mg
N = 0.8 mg
Format : 7.95/25/84.4

The product test cigarettes (prototypes 32, 33, 34, MLY act.) sent from PMG Munich/QC have been analysed and evaluated by Panel A during week 31.
All prototypes are in accordance with the objectives.
Five new versions will be made with :

a) Burley casing and PC solution from Richmond with the flavour of versions 32, 33 and 34.

b) Burley casing, PC and AC solutions from Richmond.

c) Standard Burley casing and PC solution, with AC solution from Richmond.

The blends with new Burley casing and PC solution are available

370 GERDA

K = 1 mg
N = 0.1 mg

The cigarettes sent from PMG Munich/QC have been analysed during week 32, evaluated and compared with two competitive brands (Reemtsma R1 and Auslese) by Panel A. The smoke yield index has been calculated :

Prototype No	101 A	101 B	R1	Auslese
Smoke Yield Index	11	10	14	25

0001143342

Source: https://www.industrydocuments.ucsf.edu/docs/kpml0000

377 JAQUELINE K = 13 - 15 mg
N = 1.1 mg

Two blends will be available during week 35.
The cigarettes will be produced with the cigarette paper Wattens Tobacco Stalks TAB 39300.

363 DELAWARE

The overtipped cigarettes for the product test had an off-taste. For this reason, Marketing decided to make an open test.
The product test cigarettes are available. According to Panel A they are up to expectations.

320 MANHATTAN

Prototypes 16 and 17 have been evaluated by Panel A.
Trial 17 is prefered. The analyses have been repeated in order to confirm the results of the report dated July 29th 1980 concerning these two prototypes before presenting these cigarettes to the Marketing.

Z. Singer

20/08/1980/ZDS/cap

0001433343

Source: https://www.industrydocuments.ucsf.edu/docs/kpml0000

PROJECT TITLE	:	CIGARETTE DEVELOPMENT TECHNICAL REPORT
WRITTEN BY	:	J.-H. DU BOIS
PERIOD COVERED	:	June 24th - August 20th 1980

S W E D E N

355 GOSTA I

A product delivering 1 mg tar or less. SN and CO values are not specified and should be commensurately low. American blend type of taste. Moderate size format with cork tipping.

A porous plug wrap of 200 K on dual filters is not sufficient to obtain the necessary dilution level for a 1 mg product. Dual filters from Filtrona, having a 15 mm wrapless acetate segment have been received and a 2 mg product is available. Further trials have been ordered with porous cigarette papers in order to try to bring the tar level lower.

361 GOSTA II

An American blend, GAMMA type product, delivering 2 or 4 mg tar. Moderate size.

Three products are now available (GOSTA I No 9, and GOSTA II No 39 and 46).
GOSTA I No 9 is a high impact, low puff count product.
GOSTA II No 46 is a low impact, high puff count product.
GOSTA II No 39 is an intermadiate product.
These products are ready for testing and Marketing will now have to decide which of the products they want to test.
A second repetition of the prototypes, made with a blend entirely prepared in the primary, is positive.
At the same time, the same series of prototypes was produced with a Pela 54 cigarette paper and this gave a still better taste.

0001433344

Source: https://www.industrydocuments.ucsf.edu/docs/kpml0000

359 GULLIVER — Product test between MLF and MLK.

The product test results are negative and they will be presented at the CMS meeting in Lausanne on August 22nd 1980.

F I N L A N D

142 BUBBLE — 8 mg tar

Prototypes in a normal and king size format have been produced and accepted analytically and for taste.
The trial is now being confirmed in ATO.
In parallel, four prototypes with a slightly lower tar level (6-7 mg) have been produced in FTR with the MLB-DB blend and 3.4/46'000 I single acetate filters having a FU-POV 100 plug wrap. Taste results will be available shortly.

U N I T E D K I N G D O M

208 TENNIS — UK tar less than 16 mg/cig.
Format : 7.975/20/85

Diluted prototypes of version M7/6 with an adapted blend have been ordered.
The new flavour system from Richmond should be available shortly.

290 HILTON — 9 mg tar

Three new blend recipes have been established.

a) with increased reducing sugars, no ET and no additives.
b) with 25 % of ET and 5 % of inverted sugar.
c) with 25 % of ET and 10 % of flue-cured stems, flavoured with reaction flavour.

The first two blends have been ordered and prototypes should be available by mid-September.

00014334S

Source: https://www.industrydocuments.ucsf.edu/docs/kpml0000

369 KEEGAN — PHILIP MORRIS SUPER LIGHTS adapted to the UK legislation

Five hundred kilos of KEEGAN blend (strips form) have been sent to Leo Meyer on the 31st of July 1980.
In the same shipment were sent : 1 bobbin of cigarette paper Ecusta 708, 1 bobbin of perforated tipping paper Malaucène, 1 bobbin of porous plug wrap FU-POV 100 K and 1 carton of PMS.
Cigarette specifications of PMS have been sent to R.P. Heretick.
The objective of the work carried out in Richmond is to develop a flavoured RL sheet (according to the Hunter list) which will be introduced later on in the KEEGAN product.
Richmond will ship to FTR Burley casing, Burley Top Flavour, PC and AC solutions and flavour for LTR sheet for the development of KEEGAN prototypes which have to be conform to the Hunter list.
One blend will contain 16 % of flavoured standard LTR, the second blend will contain 8 % of unflavoured standard LTR and 8 % of RCB Monique and the third blend will contain 8% of UK LTR and 8 % of RCB Monique.
As soon as all the additives are available prototypes according to PMS specifications will be made.
US RCB is not conform to the Hunter list, but a sample lot of conform RCB has been manufactured in the US in the meantime.

371 COCKPIT RED — 18 mg tar in a 7.95/20/90 mm format

Prototypes will be produced in Munich and the necessary instructions for their production have been given.

378 COUNTRY UK — To have a diluted version of the present MARLBORO UK

One trial is being made in Weltab with the present blend and, in parallel, an adapted blend has been ordered in FTR to carry on the development.

357 TENNIS 100'S — 16 mg tar, diluted

Prototypes with flavoured filters and the current MARLBORO UK blend have been ordered from PM Holland.
Two other trials with the COUNTRY and TENNIS blends will be ordered in FTR.

J.-H. Du Bois

20/08/1980/JHD/cap

2000143346

Source: https://www.industrydocuments.ucsf.edu/docs/kpml0000

PROJECT TITLE : CIGARETTE DEVELOPMENT
TECHNICAL REPORT

WRITTEN BY : R. TOIMIL

PERIOD COVERED : July 25th - August 20th 1980

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301 HILTON 100'S IT — Format change of the HILTON cigarette from 7.95/25/84.4 to 7.95/25/99 mm

Cigarette and filter specifications have been sent to G. Völkl.

307 QUEEN IT

On the basis of prototype W6 provisional specifications have been established for a first production in Holland.

376 FANGIO IT — Production of VIRGINIA SLIMS LIGHTS US for the Italian market

The US specifications have been adapted to the European ones. A report on production constraints will be established.

350 PETER PAN — Diluted version of L & M for Italy

The specifications for the production of the first prototypes have been established.
Development will start as soon as the new flavour system from the US is received.

340 GAMMA BENELUX

Display cartons, a printing set for codes, as well as self-adhesive closing stickers for the display cartons necessary for the GAMMA product test to be carried out in Belgium and Holland, were sent to Weltab.

00014337

Source: https://www.industrydocuments.ucsf.edu/docs/kpml0000

380 GAMMA 100'S PE — Change of format of GAMMA cigarette from 7.95/25/84.4 to 7.95/25/99 mm

The specifications for the produciton of the first prototypes have been established.

257 LOS ANGELES IT

The MAA cigarette production encountered a problem of breaking resistance with the cigarette paper Pela 200.
In order to solve this problem different cigarette papers (Pela 150 and 170) have been ordered because they have a higher breaking resistance than the Pela 200.
As soon as these papers are received (week 36) trials will start in Italy.

R. Toïmil

00014334B

Source: https://www.industrydocuments.ucsf.edu/docs/kpml0000

PME PRODUCT DEVELOPMENT, August 1980

PROJECT TITLE : PRODUCT DEVELOPMENT LABORATORY
PERIOD COVERED : July 23rd - August 21st 1980
WRITTEN BY : S. BEGUIN

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1) CIGARETTE PRODUCED IN THE MANUFACTURING DEPARTMENT

a) Total quantity : 586,600
b) Number of prototypes : 58

2) TOBACCO BLEND TRIALS IN THE PRIMARY DEPARTMENT

a) 6 x 1,000 kg (unflavoured)

3) FILTER RODS PRODUCED IN THE FILTER MAKING DEPARTMENT

a) Total quantity : 120,000
b) Number of prototypes : 8

4) PACKS (20 cig.) PRODUCED IN THE PACKING DEPARTMENT

a) Total quantity : 21,530
b) Number of projects : 11

5) PRODUCT TESTS PREPARED : 3

S. Béguin

SEB / cap

00014334

Source: https://www.industrydocuments.ucsf.edu/docs/kpml0000

PROJECT TITLE : Tobacco analyses

WRITTEN BY : L. Joseph

PERIOD COVERED : July 31st - August 27th, 1980

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1. Special trials

Special FC analyses

FC strips from Thailand were received and the analyses are under way.

2. Routine tobacco lot analyses

Introduction of inputs on EDP

The partial analytical results of thirty-two lots were introduced in the analytical data list.

Lots under evaluation

Thirty-four lots.

Lots available, but not yet analyzed

Twenty-three lots.

3. Assistance to other projects

Reference cigarettes

The reference cigarettes of California, Colorado, Delaware and Hilto Italy have been made. The partial analytical results of the first three projects were given to the respective project leaders.

RCB CH

We have not been able to make cigarettes from two samples (lot Nos. 0130 and 0132) in spite of having air-dried the cut sheet during one week. The analyses of the other samples are under way.

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Source: https://www.industrydocuments.ucsf.edu/docs/kpml0000

4. Miscellaneous

Physical properties test

A meeting was held in Lausanne on August 21st with some people of the leaf department. Originally the objectives of this project were to study the degradation of the tobacco during the primary processing and to define the best threshing mode for optimal cigarette compressibility. As the selected tobaccos are substitute FC tobaccos and as these types of tobaccos will be used for ETNA expansion in the future, we have decided to integrate this study into the ETNA trials planned by the blenders.

Monitor cigarette for nitrosamine analyses

We have made twice twelve thousand TLA cigarettes with a MAA blend for Mr. Moser's group. They will use these monitor cigarettes to control the regularity of the nitrosamine analyses.

L. Joseph

August 28th, 1980
LIJ/sde

0001433351

Source: https://www.industrydocuments.ucsf.edu/docs/kpml0000

PROJECT TITLE : Cigarettes and Smoke Analysis

Period Covered : August 1 - August 29, 1980
Report Written by : F. Senehi
Report Approved by : F. Lopes

PRODUCT REPORTS

Product Reports were written on the following new or modified brands.

Brand	Manufacturer	Country of Sale
Kent Golden Lights 84/F (New brand)	Scandinavian Tob.	Denmark
Milde Sorte 83/F (Imported)	Austria Tob.	Denmark
West Filter Soft 84/F	Reemtsma	West Germany

QC FINISHED PRODUCTS

F. Senehi

02.09.1980 SEF/mat

0001433352

Source: https://www.industrydocuments.ucsf.edu/docs/kpml0000

PROJECT TITLE : Additives and Analytical Services

Period Covered : July 30 - August 25, 1980
Report Written by : A. Widmer
Report Approved by : F. Lopes

SPECIFICATIONS

- Specifications for the following products were established:

  PTA / 015 Ethyl alcohol

  PTA / 016 Sodium chloride

- The following specification was modified:

  PTA / 051 Diammonium phosphate

  The new product to be used must be of food grade quality.

- The following specification was established in order to be attached to the specification PFM / 036 (Semi FLI).

  FTA Charcoal "Pilote 11184".

TRIALS WITH NEW SUPPLIERS OF TOBACCO ADDITIVES

- Cocoa powder (VAN HOUTEN) - Ref. 1

  The test cigarettes (MPH - Italy) with two types of cocoa powder (4007, 4008) were not accepted by Panel A because of a significant difference from the standard.

- Cocoa powder (NESTLE) - Ref. 1.

  The test cigarettes (MPH-Italy) were not accepted by Panel A because of a significant difference from the standard.

- With the modification of the specifications of diammonium phosphate a series of products of new suppliers was analysed:

  - CHEMISCHE FABRIK UETIKON, Uetikon; ex CHEMISCHE FABRIK BUDENHEIM, Budenheim (RFA); "A 22-01" / yellow sheet 5671, 500 g.

    Out of specifications as regards chloride and iron content.

  - CHEMISCHE FABRIK UETIKON; ex CHEMISCHE FABRIK BUDENHEIM, Budenheim (RFA) / yellow sheet 5672, 500 g.

    It is a fertilizer quality which was not analysed.

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- CHEMISCHE FABRIK UETIKON, Uetikon; ex CHEMISCHE FABRIK BUDENHEIM, Budenheim (RFA) "A 12-01" / yellow sheet 5748, 500 g.

  Within specifications. For an industrial trial 100 kg were ordered (18.08.80).

- PLUESS STAUFFER AG, Oftringen; ex BENCKISER-KNAPSACK GmbH, Ladenburg (RFA) / yellow sheet 5673, 500 g.

  Out of specifications.

- PLUESS STAUFFER AG,Oftringen; ex BENCKISER-KNAPSACK GmbH, Ladenburg (RFA) / yellow sheet 5674, 500 g.

  Within specifications. For an industrial trial, 100 kg were ordered (18.08.80).

TRIALS ON AFTER CUTTING SOLUTIONS

- SFC 153 (PMI Richmond).

  This product combines all the individual ingredients for super-juice solutions. The trial was carried out on MER-cigarettes.

  Smoke analyses: No significant difference compared to the standard.

  Panel A: No significant difference was found. Accepted.

TRIALS WITH NEW SUPPLIERS OF FILTER ADDITIVES

- Activated charcoal (CHEMVIRON, Zürich; "TL 7900" / yellow sheet 5633, 10 kg).

  This product is based on a mineral coal.

  Laboratory: In the granulometric analyses a slight increase in the level of fine particules was found. Otherwise the sample corresponds to our specifications.

  Smoke analyses: No significant difference compared to the standard (BRD, MAA - CH).

  Panel B: Test cigarettes MAA - CH were accepted, test cigarettes BRD were different in taste.

  Panel A: Test cigarettes MAA - CH were found different due to a lack of cleanness.

  Concluded on 18.08.1980.

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Source: https://www.industrydocuments.ucsf.edu/docs/kpml0000

- Activated charcoal (SUTCLIFFE SPEAKMAN, Lancashire (GB) "365 C 12 - 30 BSS" / yellow sheet 5581, 20 kg).

  Laboratory: The sample is within specifications.

  Smoke analyses: No significant difference compared to the standard (BRD, MAA - CH).

  Panel B: Test cigarettes (MAA-CH and BRD) were accepted.

  Panel A: Test cigarettes (MAA-CH) were different from standard MAA-CH cigarettes

  Concluded on 18.08.1980

- Polyethylene glycol 600 (PLUESS STAUFFER AG, Oftringen ex HOECHST, Munich / yellow sheet 5816, 1 kg.)

  The sample is slightly out of specifications as regards the acidity. However, as that point will eventually be revised on our specifications, a sufficient quantity for an industrial trial was ordered (25.08.80).

TRIALS WITH NEW SUPPLIERS OF GLUES

- Glue for tipping paper (LAESSER AG, Erlinsbach / yellow sheet 5736, 3 x 1 kg).

  Three types of glues ("1516 G 5","1516 G 6" and "1516 G 9") were submitted. According to the supplier with this modified glues, better results on the skiptip system should be obtained.

  Machineability: The type "1516 G 5" showed the best results. For a more important trial 20 kg were ordered (18.08.80).

- Filter glue for porous paper (LAESSER AG, Erlinsbach; "LESSO 1186 / 40 K" yellow sheet 5705, 1 kg).

  Machineability: No significant improvement was noted, compared with the standard glue. Further trials are not foreseen.

SERVICES FOR OTHER GROUPS

- Analyses for L. Joseph
  Citric acid by HPLC in LTR lots (3 samples)

QC ANALYTICAL SERVICES

A. Widmer

REFERENCES

1. Monthly report A. Widmer, November 1979
   Letter from A. Widmer to Mr. B.W. Lutzig, dd August 21, 1980

0001433355

Source: https://www.industrydocuments.ucsf.edu/docs/kpml0000

PROJECT TITLE : Material testing

Period Covered : August 1st - September 1st, 1980
Report Written by : P. Balliger
Report Approved by : F. Lopes

POROUS PLUG WRAP

X 4855 DEXTER USA

X 4902 DEXTER USA

Z 5581 DEXTER Scotland

Lately, Dexter has been requested to submit to us porous plug wrap paper with different levels of porosity.

Based on analytical results, the above mentioned materials can be compared to our standard qualities presently used on pan European diluted Marlboro.

MLF - CH cigarettes will be manufactured in FTR using these porous plug wrap papers in order to determine the smoke deliveries and the subjective quality of the cigarette.

CIGARETTE PAPER

Miquel y Costas

Wattens

Malaucène

Glatz

In order to qualify a second supplier of cigarette paper suitable for the brand MLK - DB produced in PMG - Münich and Berlin, a test was simultaneously undertaken with the above mentioned suppliers.

Therefore, these suppliers have been asked to develop a prototype corresponding to our standard quality Schoeller & Hoesch's Pela 200 Mn which is the present standard regarding wire-mark appearance.

0001433356

Source: https://www.industrydocuments.ucsf.edu/docs/kpml0000

PROJECT TITLE : Material testing

JOB

According to various economical reasons JOB has been requested to make several test bobbins of cigarette paper similar to our standard quality Mauduit's 110 - 6 vergé which is the present standard quality for Marlboro.

SPECIFICATION

New material specifications were established and submitted to the suppliers. Please refer to Mrs. Flury's report.

METHOD PME

Rigidity No. 23 C

A new method for the determination of cardboard rigidity was established.

The principle of the method is the determination of the energy required to bend a rectangular test-piece from a given angle.

Breaking resistance No. 10 C

Elongation No. 11 A

The above mentioned methods were reviewed regarding test conditions.

TECHNICAL SHEETS

Porous plug wrap

No. 23	2528	X 4855	Dexter USA
No. 23	2529	X 4902	Dexter USA
No. 23	2530	Z 5581	Dexter Scotland

QC PME

P. Balliger

0001433577

Source: https://www.industrydocuments.ucsf.edu/docs/kpml0000

PROJECT TITLE : SPECIFICATIONS / PROCESS ASSURANCE

Period Covered : 23.7. - 22.8.1980
Report Written By : Catherine Flury / Thierry Bel
Report Approved By: J.B. Boder

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0. SPECIFICATIONS - OVERALL

0.1 New PME Standard Cigarette Diameter (7,95 mm)

0.2 Standard Moistures Packed Cigarettes

The PME production centers are about to adapt their specifications (previous diameter: 7,975 mm).
A request to adopt the new standard diameter has also been addressed to the Italian Monopoly.

0.3 Products Sold

The following number of products, manufactured by PME production centers or PME/ L & M licensees, are presently marketed in the main Western European countries:

Switzerland	39	Holland	17
Germany	24	Belgium	19
France	18	Luxemburg	14
		Italy	29

1. SPECIFICATIONS PER PRODUCTION CENTER

1.1 FTR Fabriques de Tabac Réunies SA Neuchâtel

- A brand protection manufacture, for sale in Ireland, has been made for SAT 011 Satine Filter.

- Filter paper FU-POV 40 L has been replaced by FU-POV 24 L on the Swiss diluted MLK-120, 34.1302, filter.

- A series of packing specs for products sold in Switzerland have been modified with regard to the new selling price and the Swiss warning text printed on the packs.

1.2 INM Intertaba S.p.A. Zola Predosa

1.3 PMH Philip Morris Holland, Eindhoven/Bergen op Zoom

- Project specs for project QUEEN have been distributed to the project group.

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Source: https://www.industrydocuments.ucsf.edu/docs/kpml0000

1.4 PMG Ph. Morris Germany Munich/Berlin

- Project specs for project GAMMA have been distributed to the project group.

- Two product versions have been withdrawn:
  - MLF 192 Marlboro Filter, for standard export sale
  - BSL 001 Bond Street Lights, for sale in Italy

- The product version MLL 004/025 Marlboro Lights, for sale in Germany, will be produced with the existing cigarette MLY 02 Marlboro Lights, in the future.

- The DPM number printed on the pack of the German Marlboro MLB has been reduced from 13 to 12 mg.

1.5 WEL Weltab SA Bruxelles

- The specs, complete set, have been withdrawn for the product AVI Aviso, sold in Benelux.

- The Merit Filter, in soft pack version (MER 020 and 041), for sale in Belgium domestic and CMC, have been replaced by Merit Filter, in hinge lid pack version (MER 054 and 055).

1.6 PM UK Ph. Morris London

1.7 Licensees

- Italy:
  - Specs have been established for Marlboro, for the second step of Esther introduction (valid since 10.8.80).
  - MLK Marlboro King Size, soft pack, are packed in Bologna on AMF or on GD X 1 packers. The specs have been completed.

- Yugoslavia:
  A complete spec file has been prepared for project MARASCHINO, Chesterfield Filter Long, to be manufactured by Fabrika Duvana, Mostar.

- Finland:
  Specs for the re-engineered cigarettes MLL Marlboro Lights and BEN Belmont Menthol, manufactured by ATO Hyrylä, have been prepared.

- Holland:
  Complete specs files have been prepared for the L & M products, manufactured by ED. Laurens BV, Den Haag.

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- Germany:
  Complete specs have been prepared for the cigarettes Bali, manufactured by H. van Landewyck, Trier.

2. MATERIAL SPECIFICATIONS

2.1 Submissions to Suppliers

PFM 037 Semi-filter "SPA"	Supplier:	Job
PFP 027 Plug wrap HF 24 K 28	"	Glatz
PCF 001 Cello 335 MS 11	"	British Cellophane
PCF 007 " 430 MS/2/R	"	Wolff
PCF 022 " 330 MS/2/S	"	"
PCF 022 " 330 MS 501	"	La Cellophane
PCB 016 Gold inner frame	"	Waddingtons

2.2 Approvals by Suppliers

Baumgartner Papiers SA have approved the material specs for four types of filters, supplied to FTR.

3. PME STANDARD RECIPES

- A new recipe has been established for NW5-AC, Nigeria, and 7 new recipes have been established for L & M solutions, used in licensee production centers.

4. SPECIFICATIONS ON EDP

The project has been outlined to Bob Smith, in the presence of Gilbert Etter. Bob Smith is making an overall PME review of the needs regarding EDP applications.

He thinks that our application should be a basis for many others and linked to them from the very beginning - which is, in a way, against our previous idea that an application "specs on EDP" might be created more or less independantly from other PME applications. Upon Bob Smith's initiative, another discussion has then taken place with Mike Davis, EDP specialist from PM Richmond and familiar with Operations applications. Also present was Dave McGill, working on PME's MRP Materials Requirements Planning application.

Mike Davis hopes to issue a report with recommendations within 6-8 weeks.

0001143360

Source: https://www.industrydocuments.ucsf.edu/docs/kpml0000

5. PROCESS ASSURANCE

5.1 AccuRay

The problem of AccuRay limits is still pending.

5.2 NTM Non-Tobacco Material Weights in Specifications

A new PME Process Assurance Method, number 702, has been issued, covering the "Determination of the quantity of glue on the tipping paper". The production centers are running the corresponding tests, in view of the determination of PME standard NTM weights.

5.4 Dilution

The inventory of all results from January, 1979, to May, 1980, from all production centers, will be distributed. A new presentation will be prepared which will include physical results as well as results of the smoke analyses, regarding the DPM, SN, Co, and No, values.

5.6 Burley Treatment

A report on the present Burley treatment systems within PME will be issued.

5.7 Kitchen and Pre- and After-cutting Solutions

The report on this subject is still on the working list.

5.8 Production of Starch Glue

This report is also to be established.

5.9 Tobacco Weights

Following the study regarding the differences in tobacco weights (MLF MER MPH MLK MLB, Jan. to May, 1980), a 6-page report has been distributed to all QC managers, on 7.8.1980.

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5.10 New Processing Depts. PMG Berlin and PMH Bergen op Zoom

A first meeting of a small working group has taken place in Berlin, on 11/12.8.1980. The objective was to define a general common idea from the QA point of view. Some information is still outstanding. A final report will then be written.

5.11 Physical Methods On Tobacco

The following methods will be issued shortly:
- No 210 Determination of the tobacco moisture by oven volatiles
- No 211 Determination of the filling power of tobacco
- No 212 Sieve test

Thierry Bel

Catherine Flury

Anne-Marie Kopp

0001433662

Source: https://www.industrydocuments.ucsf.edu/docs/kpml0000

PROJECT TITLE : Physical Testing Methods

Period Covered : August 1st - August 31st, 1980
Report Written by : T. Piko
Report Approved by : F. Lopes

PHYSICAL TESTS

A collective test on physical measurements, i.e. RTD, dilution, compressibility and o. v., was conducted from August 1979 to May 1980 within PM affiliates in Belgium, Germany, Holland and Switzerland.

A summary of the results is shown in the enclosed table.

A statistical evaluation on the results obtained was made by Dr. U. Kreuter. For the measured parameters, the standard deviations of repeatability and reproducibility were calculated. As a general remark, it must be pointed out that as the measurements are made on different samples, the results are highly dependent on the preparation of the sample units whose variability is not known. This fact together with the lab facilities (some labs are not air conditioned) explain partly the differences on the results which are also influenced either by the operator or the accuracy of the instruments.

For the different parameters measured we summarize below the conclusions allowed by the statistical evaluation.

1. Dilution

   Although being significant, the mean differences between laboratories are very little (S_L* = 0,5) and perfectly acceptable on routine checks.

2. RTD

   Statistically, the laboratory means are significantly different (S_L = 3.0). Nevertheless they can be accepted in practice.

3. Compressibility

   Quite significant at the beginning of the test, the differences between the laboratory means have decreased after an improvement made on the measuring procedure (S_L = 0,12). This value can be considered as acceptable.

4. Oven volatiles (o. v.)

   The laboratory means differ significantly (S_L = 0,33). The maximum mean difference, between PME and PMG of about 0,8 % is to be checked as well as the low value of PMH (see enclosed table).

*S_L = standard deviation of laboratory means.

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Source: https://www.industrydocuments.ucsf.edu/docs/kpml0000

PROJECT TITLE : Physical Testing Methods

PME PRESSURE DROP AND DILUTION INSTRUMENT

We received orders for 9 RTD and Dilution instruments.

(5 instruments for PMG Berlin and
4 instruments for PM Holland).

A new series of 10 instruments will be assembled until mid-September.

CIGARETTE COMPRESSIBILITY

10 instruments for the determination of the cigarettes compressibility will be ready to deliver until mid-September.

We carried out a modification of the electronic control which allows a semi-automatic operation.

MISCELLANEOUS

The "Automatic Tape Circumference Gauge" of Filtrona has been transfered and set up in the QC FTR.

QC METHODS

T. Piko

17.09.1980 THP/mat

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Source: https://www.industrydocuments.ucsf.edu/docs/kpml0000

	COMPRESSIBILITY		OVEN - VOLATILES		PRESSURE - DROP		DILUTION	
	Mean (M = 20)	Std. dev.	Mean (M = 20)	Std. dev.	Mean (M = 20)	Std. dev.	Mean (M = 20)	Std. dev.
PM - Berlin	3.059	0.246	11.25	0.28	93.9	6.0	18.7	0.4
QC - PME	3.399	0.199	11.73	0.38	89.6	2.0	19.0	1.0
QC - FTR	3.286	0.169	11.71	0.38	85.6	3.7	18.4	1.6
PM - Holland	3.101	0.177	11.00	0.54	88.7	2.0	18.6	1.0
PM - Munich	3.151	0.148	10.91	0.34	92.3	1.0	20.0	0.3
Weltab	3.192	0.185	11.39	0.49	86.5	2.8	18.8	0.7

Source: https://www.industrydocuments.ucsf.edu/docs/kpml0000

PME RESEARCH LABORATORY August 1980

PROJECT TITLE : LEGISLATION

PERIOD COVERED : July - August 1980

WRITTEN BY : C. Jeanneret

GERMANY

Warning label

A voluntary agreement has been reached in Germany between the government and the German cigarette industry for the following warning label:

"Der Bundesgesundheitsminister: Rauchen gefährdet Ihre Gesundheit. Der Rauch einer Zigarette dieser Marke enthält nach DIN durchschnittlich ... mg Nikotin und durchschnittlich ... mg Kondensat (Teer)."

(The Health Ministry: Smoking damages your health. The smoke of one cigarette of this brand contains according to DIN on an average ... mg nicotine and on an average ... mg condensate (tar).)

This warning must be applied:

- From November 1st, 1980 in newspaper ads
- From beginning of February 1981 on advertising posters
- From October 1st, 1981 on the cigarette packs.

By fall this year, the Ministry shall try to reach also such a voluntary agreement with tobacco and cigar manufacturers. In case of failure, the government would have to emit an ordinance which would also be applied to the cigarette industry.

"Chemikaliengesetz"

A final recommendation has been submitted to the German Health Ministry concerning the chemical products regulations. It is recommended that food products, additives, tobacco products and cosmetics be excepted from the law. If this recommendation is accepted, the tobacco products as such, would no be submitted to the chemicals law.

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NORWAY

The Norwegian Council on Smoking and Health wanted to have 16 different warning labels as in Sweden. The Norwegian Social Department has decided not to take up the question of new or additional warning labels, for the reason that they do not want an increase of cost and consequently an increase of consumer prices.

IRELAND

There is presently no legal prohibition of the sale of tobacco products containing additives or substitutes. The Department of Health intends to restrict and control the use of additives and substitutes and hopes to do so by voluntary agreement. The products to be sold in Ireland would be approved by the Minister on the bases of submissions to be made to the National Drugs Advisory Board. The Board would base its considerations on the English Hunter list, but not automatically apply it in Ireland. The probability of legislation exists if a satisfactory voluntary agreement cannot be reached.

Outside the region:

CANADA

The Canadian Tobacco Manufacturers' Council has agreed to add carbon monoxide levels to the tar and nicotine levels on cigarette packs. The question to put "cyanide" on the labels was discussed. The answer could depend on whether there are significant differences in "cyanide" content among brands.

C. Jeanneret

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PROJECT TITLE	: PATENTS
PERIOD COVERED	: August 1980
WRITTEN BY	: J.C. Mandiratta

PME PATENT COMMITTEE

The fourth PME Patent Committee meeting was held on 27th August 1980 in Neuchâtel.

CONTINUOUS METHOD OF DENITRATION OF TOBACCO EXTRACTS - NINO CANDIDA

The European patent application has been filed on 4th August 1980 for the above mentioned invention, designating the countries Belgium, France, Great Britain, Italy, the Netherlands, Switzerland and West Germany. The decision about abandoning or maintaining the West German national application, filed on 15th October 1979, will be made soon.

NINO PATENT APPLICATION IN LUXEMBURG

The PME Patent Committee decided at its meeting on 27th August to abandon the Luxemburg patents 77272, 77872 and 79039, filed on 6th May 1977, 29th July 1977 and 9th February 1978 respectively. These applications were filed to use as priority documents for filing patent applications in other countries within one year. Before these patents will be abandoned the Patent Office in Richmond will be asked to let us know of any adverse effect on the applications filed by them.

LIGGETT & MYERS PATENTS - TRANSFER OF PATENT RIGHTS TO FTR

M/S Watson, Leavenworth, Kelton & Taggart of New York are being consulted about the payment of renewal fees for the patents for which the patent rights have been executed in different national Patent Offices.

UNITED STATES PATENT APPLICATION - BOX FOR CIGARETTES

An amendment for the United States Patent Office has been prepared by the Patent Office in Richmond on the arguments supplied by us and Dr. Hach. Next office action of the United States Patent Office is awaited.

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NEW PATENTS ISSUED

Canada	10 81 076	Process of Refining Tobacco (Anaerobic Fermentation)
WEST GERMANY	PS 23 07 974	Process for the Manufacture of Regenerated Tobacco

J.C. Mandiratta

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Source: https://www.industrydocuments.ucsf.edu/docs/kpml0000

Project title : Instrumentation and Process Automation

Written by : M. Thévoz

Period covered : August 1980

NINO - Nitrate Monitoring

In connection with an internal request by Mr. D. Schulthess and Mr. J. Berney about nitrate and sugar monitoring in the pilot plant, a suitable and simple computerized device was defined in order to provide a better control of the fermentation and the sugar consumption in the process.

According to previous experiments conducted in that field, NO_3^- measurements based on specific electrodes have given correct information only for punctual determination followed by a storage of the sensors in a buffer solution. Furthermore, a rate of 5 to 10 minutes for sampling appears to be sufficient in the process to track the NO_3^- value and adjust the sugar concentration in the fermentor.

On that base, a set of NO_3^- electrodes are located in a specially designed vessel which can be alternatively fed by a "calibrated and diluted" sample of raw extract or a suitable "flushing and calibrating" reagent.
The data on the sample or standard are computed by an Orion ION-Analyzer (Model 901) and processed by a HP-85 microcomputer system. The latter with parallel read-write interfaces controls the whole monitoring according to the simplified annexed block diagram.

The following steps describe the main functions under computer control during monitoring.

1. Aspiration and dispensing of the diluted sample of raw extract with presetable dilution ratio.
2. NO_3^- reading and comparison with a predefined set point.
3. Alarm for off-range NO_3^- values.
4. Magnetic valves allowing sugar concentration adjustement actuated with a computerized opening time.
5. Distribution of flushing and standard reagent for electrodes protection.
6. Partial recalibration of ion-analyzer for drift correction.

These six basic steps are continuously repeated during the monitoring with a rate defined by the operator. Statistics on recorded data and graphical output representing NO_3^- concentration during the monitoring can be performed by the HP-85.

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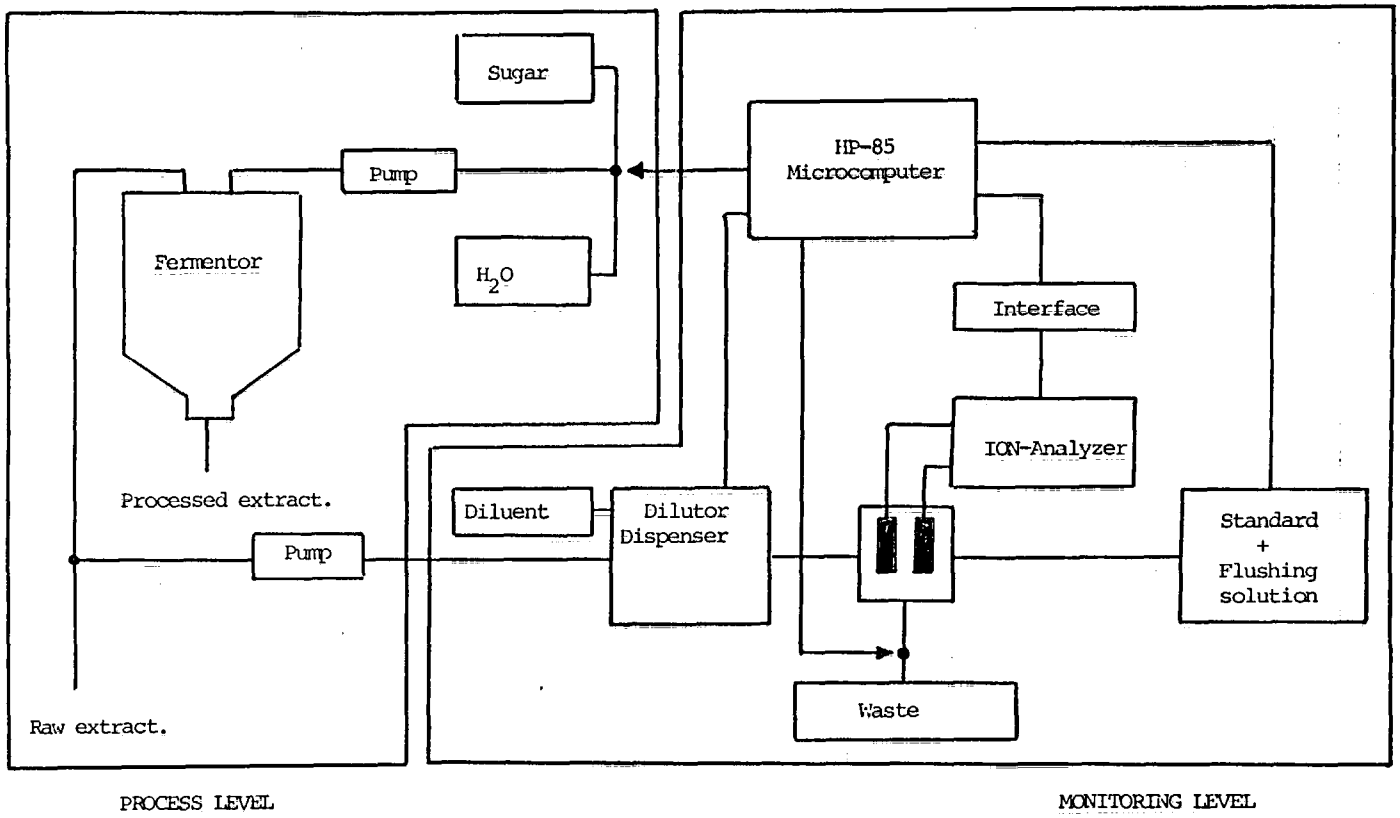

NO_3^- Monitoring - Block Diagram

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The hardware for this monitoring was ordered at the end of August and will be assembled during autumn 1980, depending on the ability of suppliers to provide the requested interfaces.

The test of this "step-monitoring" will be simulated in a first phase on a small scale laboratory fermentor without feedback and on a fixed NO_3^- concentration extract. These experiments will give a better understanding of electrode response for the discontinuous sampling-mode. Different kinds of feedbacks to glucose distribution will be attempted in a second phase before the transfer of the monitoring installation to the pilot plant.

The programs of the HP-85 are written in BASIC and the application software is easy to modify. Programs and experimental data can be stored on a magnetic tape cartridge of 210 kBytes.

M. Thévoz

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